Rational Pharmaceutical Management Plus
Conference on Preventing Mortality from Postpartum Hemorrhage in Africa: From Research to Practice, Entebbe April 04-07, 2006: Trip Report

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April, 2006

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Strategic Objective 2 (SO2)

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About RPM Plus

The Rational Pharmaceutical Management Plus (RPM Plus) Program, funded by the U.S. Agency for International Development (cooperative agreement HRN-A-00-00-00016-00), works in more than 20 developing countries to provide technical assistance to strengthen drug and health commodity management systems. The program offers technical guidance and assists in strategy development and program implementation both in improving the availability of health commodities—pharmaceuticals, vaccines, supplies, and basic medical equipment—of assured quality for maternal and child health, HIV/AIDS, infectious diseases, and family planning and in promoting the appropriate use of health commodities in the public and private sectors.

Abstract

Severe bleeding after childbirth is the largest cause of maternal death, accounting for at least one-quarter of maternal deaths worldwide. In the Africa region postpartum hemorrhage (PPH) contributes to an even higher proportion of maternal mortality. In April 2006, the ACCESS program in collaboration with other partners organized an Africa regional conference to build on the knowledge available about best practices to prevent PPH and to adopt a concerted action to reduce the occurrence of the mortality from PPH.

The conference brought together leading experts, program managers and safe motherhood professionals. Deliberations were conducted through plenary sessions and skills labs. During the plenary sessions, research findings were presented and discussed. The purpose of the skills lab sessions was to give participants the opportunity to learn how to perform selected clinical procedures, explore new technologies, and understand key topics better.

Take home messages included the following:

- Active management of the third stage of labor (AMTSL) is the RIGHT of every woman in childbirth.
- All stakeholders must facilitate its use wherever there is a skilled provider by ensuring availability of appropriate uterotonics and training.
- Health care providers cannot afford not to prevent and treat PPH— preventing PPH saves money and lives

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Key Words

Postpartum Hemorrhage, Uterotonics, Third stage labor, Maternal Mortality

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CONTENTS

ACRONYMS

ACCESS program	USAID's global program to improve maternal and newborn health
AMTSL	Active Management of Third Stage Labor
PPH	Prevention of Postpartum Hemorrhage
RCQHC	Regional Center for the Quality of Health Care
ECSAHC	East, Central and South Health Community
REDSO/ESA	Regional Economic Development Services Office for East and Southern Africa
POPPHI	Prevention of Postpartum Hemorrhage Initiative
WHO	World Health Organization
UNICEF	United Nations Children's Fund
TBA	Traditional Birth Attendant
CA	Contracting Agency
FIGO	Federation of Gynecology and Obstetrics
ICM	International Confederation of Midwives

BACKGROUND

Bleeding in excess of 500 milliliters after childbirth (postpartum hemorrhage or PPH) is the single largest cause of maternal death worldwide, accounting for at least one-quarter of maternal deaths. In the Africa region postpartum hemorrhage (PPH) contributes to an even higher proportion of maternal mortality. The World Health Organization (WHO) estimates that 150,000 women bleed to death each year as a result of childbirth. A woman suffering from PPH can die quickly unless she receives immediate and appropriate medical care.

There are several reasons why women in developing countries face a greater risk of dying from PPH; many deliver at home and often are attended by unskilled care givers (TBA, family member), emergency transport may be lacking or the necessary supplies/equipment and medicines may be lacking during delivery.

Most deaths from PPH could be prevented if women received care from a skilled provider during childbirth. Active Management of Third Stage Labor (AMTSL), which are clinical procedures performed by skilled providers, has been shown to prevent PPH. The administration of an uterotonic immediately after delivery of the baby can also prevent excessive bleeding. Medicines for this purpose include oxytocin and ergometrine.

The International Federation of Gynecology and Obstetrics (FIGO) and the International Confederation of Midwives (ICM), in collaboration with USAID since November 2003 launched efforts targeting the prevention of PPH. Specific actions have included advocacy, support for research to assess the role of different technologies, promotion of uptake of updated and accurate clinical information of PPH among health care professionals.

The Africa regional conference aimed to build on the knowledge available about best practices to prevent PPH and to adopt a concerted action to reduce the occurrence of the mortality from PPH.

Purpose of Trip

RPM Plus provides technical assistance in collaboration with a CA partnership comprised of the PATH's Prevention of Post-Partum Hemorrhage Initiative (POPPHI) and HealthTech projects, and JPHIEGO's ACCESS program. This partnership was formed to support USAID's global initiative in expanding prevention services for post-partum hemorrhage (PPH). RPM Plus pays specific attention to medicines and supplies management issues that might hinder practice of AMTSL to prevent PPH.

Bannet Ndyanabangi and Emmanuel Nfor, both of RPM Plus, facilitated discussions at a skills lab at the conference on 'Ensuring efficient supply and storage of uterotonics; pharmaceutical management issues in prevention of PPH'. They also participated in discussions during plenary sessions.

Scope of Work

The scope of work for the team was as follows:

1. The team Participated in the PPH conference plenary sessions. Topics that were discussed during the plenary sessions are as follows:

   - Epidemiology of postpartum in Africa
   - The status of PPH prevention in Africa: results of a survey in Tanzania and Ethiopia
   - Challenges in introducing Active Management of Third Stage Labor (AMTSL).
   - PPH prevention in home births
   - Promoting Community interventions to prevent PPH

2. The RPM Plus team made presentations on management of uterotonics and facilitated discussions at skills lab #5 on "Ensuring efficient supply and storage of uterotonics; pharmaceutical management issues in prevention of PPH.

ACTIVITIES

Participation in the PPH conference plenary sessions

Key Messages from the discussions that took place during the conference plenary sessions were that:

- Active management of the third stage of labor (AMTSL) is the RIGHT of every woman in childbirth.
- All stakeholders must facilitate its use wherever there is a skilled provider by ensuring availability of appropriate uterotonics and training.
- Health care providers cannot afford not to prevent and treat PPH— preventing PPH saves money and lives
- Preventing maternal mortality from PPH is first and foremost about achieving coverage. If we do not achieve near universal coverage, we will not make an impact on mortality. So choose a strategy that is feasible and affordable for achieving coverage.
- The research done to date must be translated into programs, practice, and results. There is sufficient evidence to act now!
- Misoprostol is effective in preventing and treating PPH, and appropriate for use where there are no skilled providers. To make this intervention available, countries must develop a strategy based on their needs and lessons learned from pilot studies. Safety and other data must be rigorously monitored.
- Countries must develop and implement a plan to transition from TBA- assisted births to universal skilled care at the community level.
- There is a critical need for improving emergency care, especially basic emergency care, while introducing new innovations that make transfer safer—such as hydrostatic tamponade and anti-shock garments.
- "Without working together, midwives and doctors stand divided. And the person who pays is the woman giving birth."
- Convincing colleagues and stakeholders involves:

  –Science
  –Art
  –Cajoling
  –Diplomacy

Presentation and facilitation at a skills lab on "Ensuring efficient supply and storage of uterotonics; pharmaceutical management issues in prevention of PPH

The skills labs together made up the 'PPH market place' that was marked by demonstrations and displays (details are included in the annex).

Information material that was developed by RPM Plus and used at the conference is included in Annex 2 of this report.

Issues discussed in skills laboratory #5 are summarized below:

- Need to ensure Quality assurance for Uterotonics through appropriate supplier selection, quality control laboratories and continuous post distribution surveillance in-country.
- Distribution of Uterotonics should be integrated into existing medicines distribution systems that assure cold chain.
- Need to specify 'room temperature' at which Oxytocin can be stored out of cold chain for up to three months. The recommended room temperature is 25-30^{O}C, however temperatures as high as 45oC are experienced in some countries, what would be the length of time to keep Oxytocin?
- Local manufacture of Uterotonics as a way to increase availability of affordable Uterotonics e.g. local manufacture of misoprostol in Nigeria
- However, how to guarantee quality assurance was seen as a challenge.
- Important role of pharmacists, pharmacy attendants and supply/procurement officers in ensuring successful implementation of AMTSL, through contribution of technical expertise in decisions affecting efficacy, stability and quality of Uterotonics.
- Concerns were raised as to why current clinical studies could not be used as basis for recommendation for use of misoprostol.
- Misoprostol (Vagiprost) has been 'registered' for off-label use in Kenya; however there is no policy on this. Nigeria has also registered Misoprostol for use at tertiary level only.
- Findings from studies on AMSTL in Tanzania and Ethiopia highlight problems with inventory management for uterotonic e.g. stock outs for periods up to four months and over stocks of six months; this calls for efforts at national and international level to improve Uterotonics supply management.
- In Mali all medicines on the EML are tax-exempt thus enabling greater accessibility to essential medicines. Other countries where this exemption does not already exist may need to consider doing so.

- In countries where Uterotonics are not included on the EML, efforts need to be intensified to cause their inclusion.

- Advocacy for AMSTL is necessary to ensure appropriate government support for implementation and budgetary allocation.

Collaborators and Partners

The RPM Plus team met with representatives from WHO, USAID Uganda Mission, USAID/REDSO, RCQHC, ECSAHC, REDSO/ESA, ACCESS Program, POPPHI Project, other participants from African countries, Asia and the USA.

NEXT STEPS

Immediate Follow-up Activities

1. During the conference, country delegations developed Action plans for implementation of interventions aimed at prevention of PPH in their countries. RPM Plus, shall work with POPPHI in supporting countries that request assistance in the implementation of these Action plans.

2. RPM Plus shall also update the information material for circulation and use at the forthcoming PPH conference in Goa, India.

ANNEX 1. CONFERENCE PROGRAM

Preventing Mortality from Postpartum Hemorrhage in Africa: Moving from Research to Practice, Entebbe, April 04 to 07, 2006

Tuesday 4 April, 2006

1:00 – 5:00 **Registration**

2:00 – 4:00 **Meeting of Speakers, Moderators, Country Team Leaders and Rapporteurs**

Opening Session

5:30 – 6:20 **Welcome and opening**

Joel Okullo: Director, RCQHC
Leslie Mancuso, President & CEO, JHPIEGO
Koki Agarwal, Director, ACCESS Program
Nahed Matta, USAID/W
***TBD, ECSA*,**
TBD, WARP
***Monir Islam*, WHO**
TBD, Uganda MOH
Guest of Honour *Prof GB*

6:20 – 6:50 **Keynote address**
Overcoming resistance to change
Creating Champions for change
Japheth Mati, Kenya

Describe how you overcame resistance to change in healthcare practices.
What were the challenges you faced, share your successes and reflect on what you may have done different.
What were the key lessons learned as you created champions for change and led the effort to translate good science into large scale programs with public health impact?
How can those lessons be applied to preventing and treating PPH?

6:50 – 7:00 **Vote of thanks**

7:00 **Dinner**

8:00 – 8:30 Introductions, Objectives of Meeting, Agenda, Expected Products: Harshad Sanghvi

Session 1: Preventing Postpartum Hemorrhage Where There Are Skilled Providers

Chairperson: **Rapporteur:**

8:30 – 8:50 Epidemiology of Postpartum Hemorrhage in Africa: Seipati Mothebesoane-Anoh, WHO/AFRO

Purpose: Describe the magnitude of the problem of PPH in Africa
Objectives:
Review the contribution of PPH to MMR in Africa
Discuss the challenges in measuring PPH
Describe the major causes of PPH in Africa
Clarify why a risk approach is unsuitable for prevention of PPH

8:50 – 9:10 Active Management of the Third Stage of Labor: Blami Dao, Burkina Faso

Purpose: Familiarize participants with the evidence basis for AMTSL
Objectives:
Define active and physiologic management of third stage of labor
Share the evidence basis for adopting AMTSL
Describe the benefits of AMTSL (Skit)
Describe the extent to which AMTSL is adopted in the world

9:10 – 9:30 Overview of Uterotonic Drugs Emmanuel Oladipo Otolorin, Nigeria

Purpose: Ensure participants have state of the art information on all uterotonics
Objectives:
Describe the various uterotonic drugs available
Discuss their bio-availability, properties and safety
Discuss their advantages and disadvantages
Describe the storage needs for uterotonics

9:30 – 10:00 Discussion

10:00 – 10:30 Coffee break

Wednesday, April 5, 2006

10:30 - 11:10 Status of PPH Prevention in Africa: Results of a Survey in Two Countries:
Alice Mutungi (RCQHC)
Sayoki Mfinanga, Tanzania
Ashebir Getachew Tekle-Michael, Ethiopia

Purpose: Share findings from surveys on AMTSL
Objectives:
Discuss the rationale, methods, sampling for the studies
Describe results on practice of AMTSL and the challenges being faced
Identify differences in different countries

11:10 – 11:30 Challenges in Introducing Active Management of Third Stage of Labor in Peripheral Hospitals: Velepi Mtonga, Zambia

Purpose: Describe how low resource countries have implemented AMTSL
Objectives:
Describe the PPH situation in-country
Discuss the key elements of the interventions
Show the key results and impact of interventions
Discuss challenges and next steps
Describe lessons learned

11:30 - 11:50 Training in Active Management of Third Stage of Labor: Aoua Zerbo (Burkina Faso)

Purpose: To show how innovative Competency-Based Training approaches can produce safe and competent providers
Objectives:
Describe the approach to training
Describe the course content and show training materials
Discuss the challenges in implementing training for AMTSL
Show results of training
Discuss how countries/programs can implement high quality training

11:50 - 12:10 Addressing Policy, Logistics and Programming: Koki Agarwal, ACCESS

Purpose: Describe what countries will have to do to scale up PPH prevention/treatment programs
Objectives:
Describe policy and logistic barriers to expanding PPH programs
Discuss how these barriers are being/will be overcome

12:10 - 12:30 FIGO-ICM: Joint Statement on PPH
***Friday Okinofua,*FIGO**
Lennie Kamwendo, Malawi

Purpose: To demonstrate how midwives and doctors can come together to address key concerns

Objectives:

Present the FIGO-ICM statement
Describe how Africa can respond
Share any results that have already become apparent as a result of this effort

12:30 – 1:00 Discussion

1:00 – 2:00 Lunch

Session 2: PPH Marketplace: Demonstrations and Displays

2:00 - 5:00 Country efforts at preventing PPH (posters)
Country situation: all country teams
Survey and Research results
Program approaches and Best Practices

Skills Lab #1: Active management of third stage: Patricia Gomez; Aoua Zerbo
Demonstration and practice of AMTSL on models

Skills Lab #2: Basic procedures for treatment of PPH: Zahida Qureshi, Blami Dao
Demonstration of bimanual compression, aortic compression, manual removal of placenta and suturing cervical lacerations

Skills Lab #3: Innovations in treatment of PPH: Sylvia Deganus, Ashlesha Patel, *Sue Ellen Miller*
Demonstrations of drape
Demonstration of use of anti-shock garment
Demonstration of use of B-Lynch procedure and intrauterine balloons

Skills Lab #4: Infection prevention and safe injections: Lunah Ncube, South Africa; Dorothy Andere, Kenya; Reuben Mbewe, Zambia
Demonstration of selected infection prevention techniques and new injection technologies

Skills Lab #5: Ensuring efficient supply and storage of uterotonics; pharmaceutical management issues in prevention of PPH: Bannet Ndyanabangi; **Emmanuel Nfor**, **RPM Plus/MSH, USA**

Skills Lab #6: Obtaining registration of misoprostol for use in prevention and treatment of PPH: Jotham Musinguzi, Uganda; Melodie Holden (USA)
Understand the intricacies of making new drugs available; define various ways in which drugs are authorized for use in African countries; discuss the process of licensing and registration; reflect on how the process can be expedited.

Skills Lab #7: Social Mobilisation: Nancy Russell, USA, *Joseph De Graaft Johnson, ACCESS*
Demonstration and discussion: how to involve stakeholders and increase dialogue for preventing PPH

5:00 - 6:00 **First Country Team Meeting**

6:30 – 8:00 **Reception**

Thursday, 6 April 2006

8:15 – 8:30 **Review of day one proceedings**

Session 3: Preventing Postpartum Hemorrhage at Home Birth (where there are no skilled providers)

Chairperson: **Rapporteur:**

8:30 – 9:00 **Effectiveness of Misoprostol for Prevention of PPH: Review of the Global Experience:**
Justus Hofmyer, South Africa

Purpose: Familiarize participants with the controversies surrounding misoprostol

Objectives:
Describe the various studies on efficacy of misoprostol for use in preventing PPH
Discuss the strengths and weakness of these studies
Describe results of the latest meta-analysis
Reflect on the implications for programs

9:00 – 9:20 **Preventing PPH at primary Health centers: Guinea Bissau**

Lars Høj, Denmark

Purpose: Decide if this promising approach is effective in prevent PPH

Objectives:
Describe the rationale, methodology, sample size, shortcomings and results of the study/programs
Review results from other studies
Reflect on implications for programs

9:20 – 9:40 **Preventing PPH at Homebirth: Gambia**

Purpose: Decide if this promising approach is effective in preventing PPH

Objectives:
Describe the rationale, methodology, sample size, shortcomings and results of the study/programs
Review results from other studies
Reflect on implications for programs

9:40 – 10:00 Preventing PPH at Homebirth: Experiences from ASIA
Harshad Sanghvi, JHPIEGO

Purpose: Decide if this promising approach is effective in prevent PPH
Objectives: Describe the rationale, methodology, sample size shortcomings and results of the study/programs
Review results from other studies
Reflect on implications for programs

10:00 – 10:30 Questions and Answers

10:30 – 11:00 Break

11:00 – 11:20 Does Suckling or Nipple Stimulation Prevent PPH?
Colin Bullough

Purpose: Decide if this promising approach is effective in preventing PPH
Objectives:
Describe the rationale, methodology, sample size, shortcomings and results of the study/programs
Review results from other studies
Reflect on implications for programs

11:20 – 11:40 Home-Based Life Savings Skills: Diana Beck, ACCESS

Purpose: Describe promising approaches for preventing PPH at homebirth
Objectives:
Describe the rationale, methodology, sample size, shortcomings and results of the study/programs
Review results from other studies
Reflect on implications for programs

11:40 – 12:00 Questions and answers

12:00 – 1:00 Lunch

1:00 – 3:00 Small Group Discussion (6 groups)

Promoting and Scaling Up AMTSL

Addressing policy, ensuring availability of uterotonics, monitoring progress
Ensuring AMTSL for all: delivering the service
Training and supportive supervision for AMTSL

Promoting Community Interventions to Prevent PPH

Addressing policy, ensuring availability of misoprostol and monitoring progress
Ensuring PPH prevention for all: community education and distribution of misoprostol
Training and supportive supervision for community interventions

3:00 – 3:30 Tea Break

3.30 – 5:00 Panel of Donors and TA Agencies

Purpose: Link countries/programs to potential donors supporting PPH prevention and treatment

Objectives:

Describe the organization
Discuss where MNH and PPH is in their priority
Describe how countries /programs may seek assistance from the organization

5:15 – 6:00 Second meeting of country teams

Friday, 7th April 2006

8:15 – 8:30 **Review of prior day**

Session 4: Treatment of Postpartum Hemorrhage

Chairperson: **Rapporteur:**

8:30 – 9:00 **Addressing the Challenges for Treating PPH: First Interventions: Andre Lalonde**

Purpose: Understand what is possible at peripheral sites in treating PPH

Objectives:
Describe the urgency for rapidly initiating treatment
Describe initial medical and surgical approaches
Reflect on potential innovations and how they can be come more widely used

9:00 – 9:20 **Addressing the Challenges of Treating PPH: Emergency Obstetric Care: Harshad Sanghvi**

Purpose: Describe promising approaches for recognizing and treating PPH at homebirth

Objectives:
Describe the rationale, methodology, sample size, shortcomings and results of the study/programs
Review results from other studies
Reflect on implications for programs

9:20 – 9:40 **Innovative Treatment Approaches: Options at Homebirth: Ndola Prata**

Purpose: Describe promising approaches for recognizing and treating PPH at homebirth

Objectives:
Describe the rationale, methodology, sample size, shortcomings and results of the study/programs
Review results from other studies
Reflect on implications for programs

9:40 – 10:00 Postpartum Contraception Options for Women With Life-Threatening Complications: Catharine McKaig

Purpose: Emphasize why postpartum family planning is crucial to the health of women who have had major obstetric complications

Objectives:

Describe the rationale for postpartum family planning

Discuss how this applies to women who have had life-threatening complications

List contraceptive options for specific situations

Discuss how to decrease missed opportunities for offering postpartum family planning opportunities

10:00 – 10:30 Discussion

10:30 – 11:00 Tea break

11:00 – 12:30 Development of action items: third meeting of country teams

12:30 - 1:30 Lunch

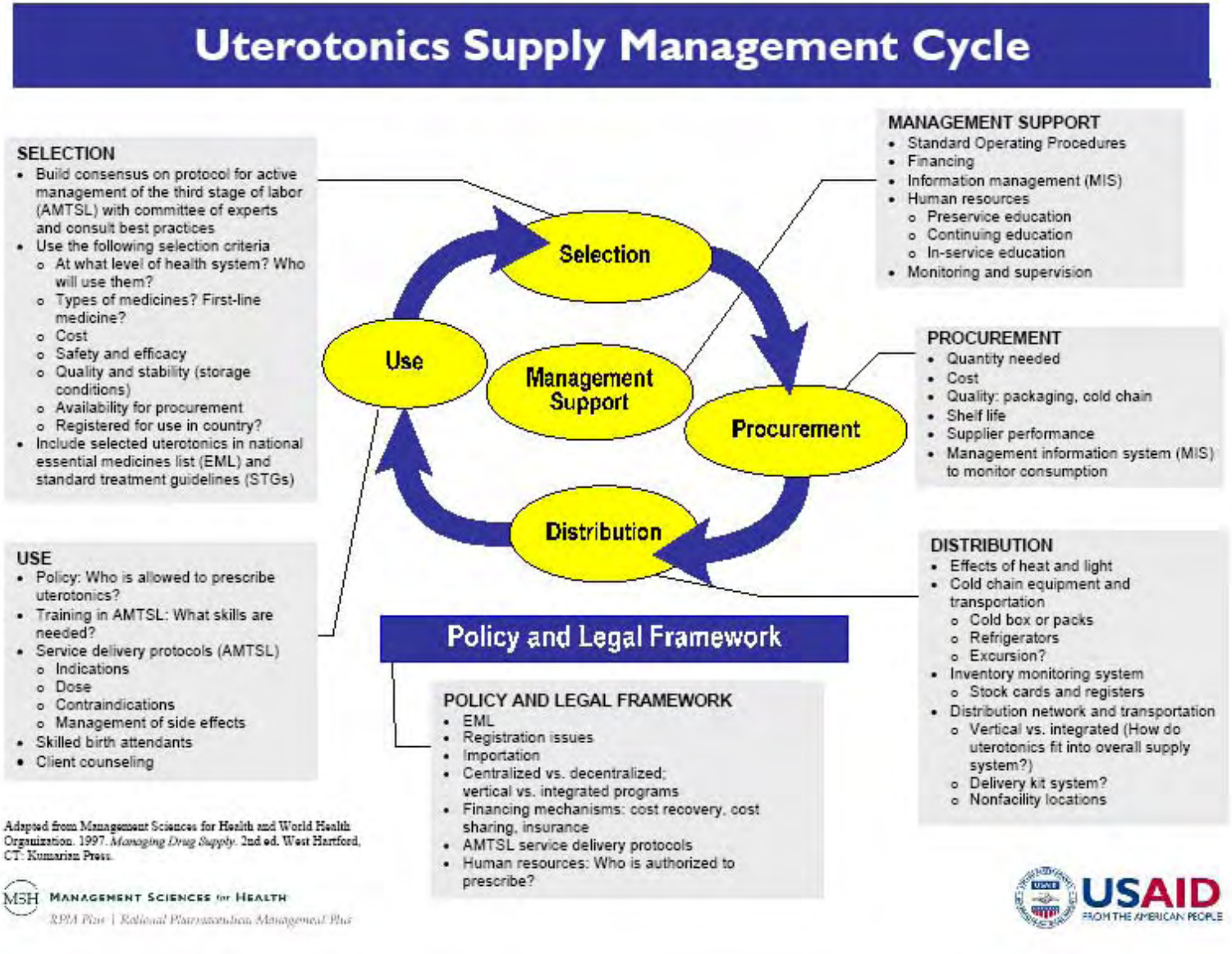
1:30 – 3:15 Presentation of country actions

3:15 – 3:45 Summary and call to action

3:45 – 4:00 Closing Remarks

4:00 – 5:00 High Tea and Farewell

ANNEX 2. HANDOUTS AND PRESENTATIONS.



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Uterotonics for the Active Management of the Third Stage of Labor

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Managing Uterotonics for AMTSL

Uterotonic medicines are used for both preventing postpartum hemorrhage (PPH) and treating hemorrhage. However, the active management of the third stage of labor (AMTSL) as a prevention intervention greatly reduces the need for additional medicines and expensive, frequently unavailable, and sometimes risky-to-transfuse blood products used to manage hemorrhage. The prevention focus thus saves lives, valuable financial resources, and time that health care workers must spend providing crisis health care.

Stability of Uterotonics

To deliver AMTSL effectively, uterotonic medicines, preferably oxytocin, must be on hand to give to the mother immediately after her baby is born. Although it requires refrigeration, oxytocin can be used for up to three months if stored at room temperature, depending on the manufacturer (check manufacturer's label). Ergometrine, another uterotonic, is heat and light sensitive, so it must be managed appropriately to protect quality and stability until it is administered. Syntometrine is a product combining oxytocin and ergometrine; therefore, it has the stability problems associated with ergometrine. To maintain proper temperatures, a "cold chain" must be in place to manage heat-sensitive medicines.

A cold chain is a system of refrigerators, cold boxes, and other devices such as cold packs that maintain the proper temperature for medicines from the point of manufacture to the point of administration.[1] In addition, a system for monitoring temperatures at points along the cold chain (e.g., in refrigerators and freezers) should be operational. Many program planners and managers are already familiar with the concept of the cold chain, which is vital to the storage and distribution of vaccines.

A third type of uterotonics are the prostaglandins (type E1)—for example, misoprostol. Off-label recommendations have been given for use of misoprostol in the prevention of PPH; however, additional clinical studies to provide more information on its effect are ongoing.

Uterotonics Supply Management

Even well-trained service providers will not be able to provide quality care unless the availability of stable and effective uterotonics is assured. Effectively managing uterotonics requires careful product selection, procurement, storage, distribution, and use, supported by a policy and regulatory environment that promotes the widespread provision of high-quality products.

Program planners need to consider the following four key aspects of pharmaceutical management.

[1] Management Sciences for Health and World Health Organization. *Managing Drug Supply*. 2nd ed. (West Hartford, CT: Kumarian Press, 1997), 332.

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Oxytocin in Active Management of the Third Stage of Labor

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Background

Severe bleeding after childbirth is the largest cause of maternal mortality, accounting for at least one-quarter of maternal deaths worldwide. In the African region, postpartum hemorrhage (PPH) contributes to an even higher proportion of maternal mortality. Active management of the third stage of labor (active delivery of the placenta) helps prevent postpartum hemorrhage. Active management of the third stage of labor (AMTSL) includes—

- Immediate oxytocin
- Controlled cord traction
- Uterine massage

Oxytocin plays an important role in ATMSL and prevention of PPH. The availability and proper use of oxytocin are key components to the success of interventions to prevent PPH. When oxytocin cannot be used, misoprostol has sometimes been recommended for prevention of PPH, although it is an off-label recommendation. Clinical studies on the effect of misoprostol are ongoing, however, and no final recommendation has yet been agreed upon. In the event of oxytocin failure, ergometrine may be used; however, ergometrine is more sensitive to light and heat than oxytocin and loses its potency quite rapidly if left unrefrigerated.

Using Oxytocin

Oxytocin is a naturally occurring hormone in the human body that is stored in the pituitary gland. When released in a mother just after the birth of a baby, this hormone stimulates both milk production and contraction of the uterus to slow and stop uterine bleeding. The naturally occurring hormone may be insufficient in preventing PPH, however. Synthetic oxytocin is the form used in preventing and treating PPH. It is administered either intramuscularly or intravenously. It gives tone to and overcomes relaxation of the muscular uterine wall, thus preventing severe bleeding.

Oxytocin has the most rapid onset of action of any of the medicines available for PPH. It is effective two to three minutes after injection, has minimal side effects, and can be used in all women. It reduces the length of the third stage of labor and is inexpensive.

Although it requires refrigeration, oxytocin can be used for up to three months if stored at room temperature, depending on the manufacturer (check manufacturer's label).

Making Oxytocin Available

Oxytocin should be included in the national essential medicines list and standard treatment guidelines to ensure that it is procured along with other medicines.

The preferred storage of oxytocin is refrigeration, but it can be stored at room temperature for up to three months (depending on the manufacturer's

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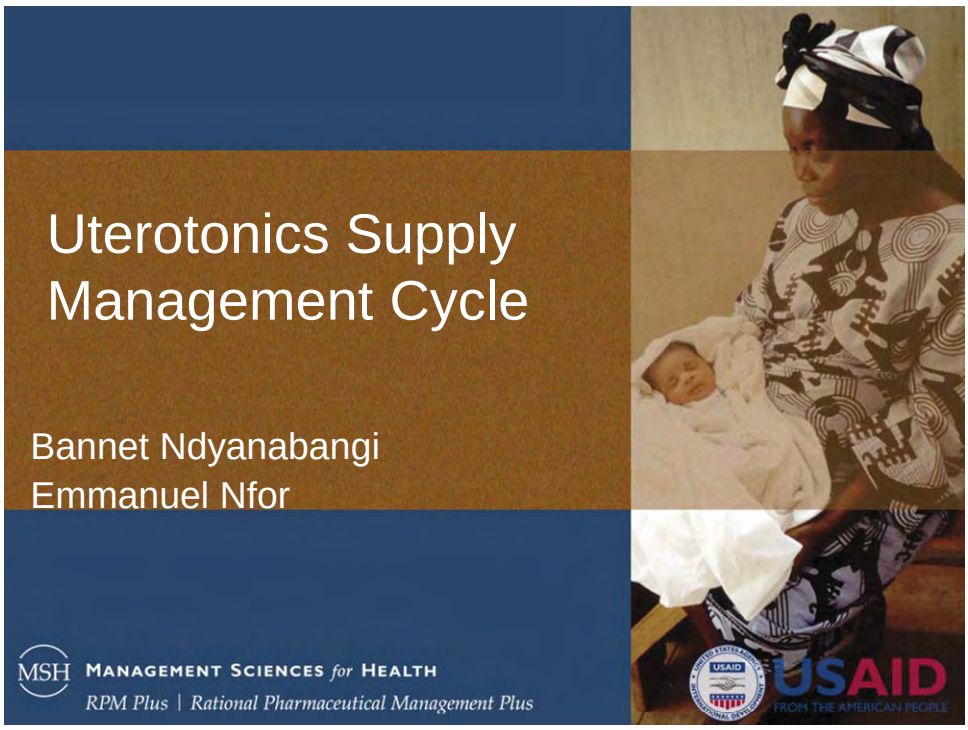
Uterotonics Supply Management Cycle
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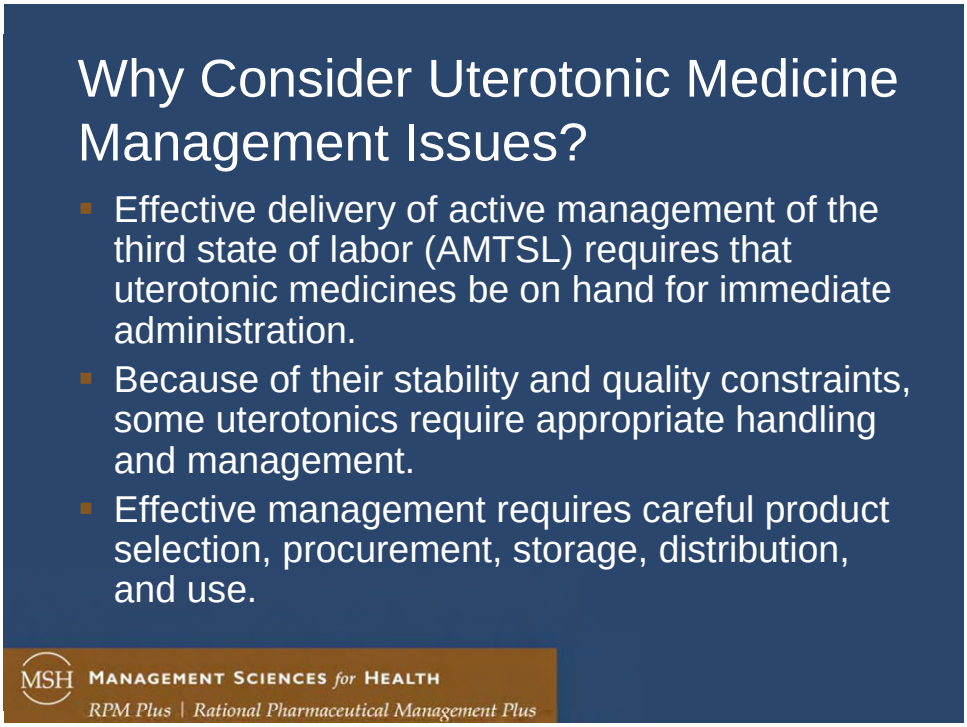
FROM THE AMERICAN PEOPLE


Why Consider Uterotonic Medicine Management Issues?
Effective delivery of active management of the third state of labor (AMTSL) requires that uterotonic medicines be on hand for immediate administration.
Because of their stability and quality constraints, some uterotonics require appropriate handling and management.
Effective management requires careful product selection, procurement, storage, distribution, and use.
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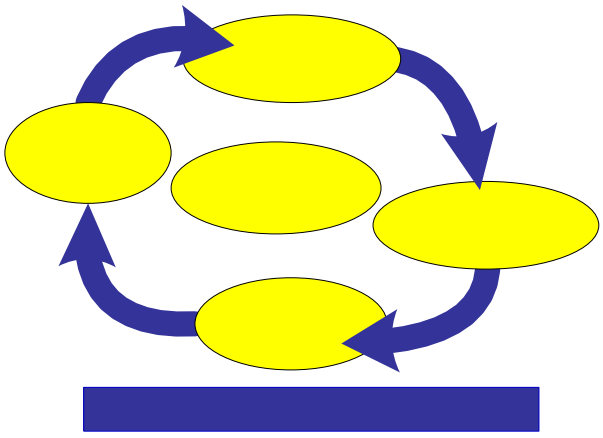
Pharmaceutical Management Cycle



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Selection

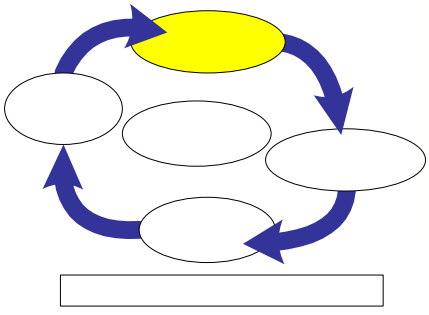
Use

Management Support

Pr

Selection of Uterotonics

- Build consensus on protocol for AMTSL with committee of experts and consult best practices
- Use the following selection criteria
  - At what level of health system? Who will use them?
  - Types of medicines? First-line medicine?
  - Cost
  - Safety and efficacy
  - Quality and stability (storage conditions)
  - Availability for procurement
  - Registered for use in country?
- Include selected uterotonics in national essential medicines list (EML) and standard treatment guidelines (STGs)



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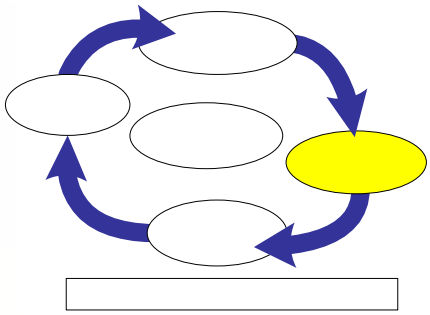
Distribution

Procurement of Uterotonics



- Quantity needed
- Cost
- Quality: packaging, cold chain
- Shelf life
- Supplier performance
- Management information system (MIS) to monitor consumption

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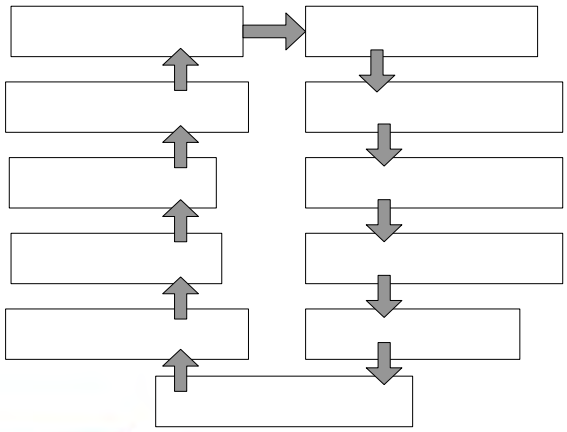
Selection

The Procurement Cycle



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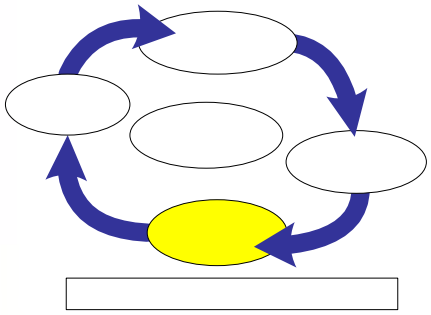
Distribution of Uterotonics



- Effects of heat and light
- Cold chain equipment and transportation
  - Cold box or packs
  - Refrigerators
  - Excursion?
- Inventory monitoring system
  - Stock cards and registers
- Distribution network and transportation
  - Vertical vs. Integrated (How do uterotonics fit into overall supply system?)
  - Delivery kit system?
  - Nonfacility locations

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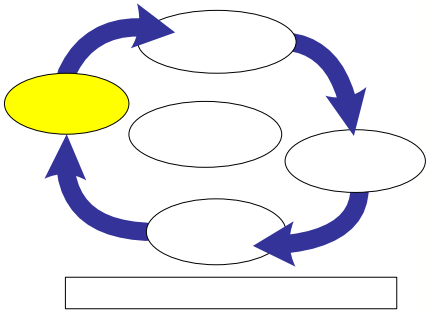
Selection

Use of Uterotonics

- Policy: Who is allowed to prescribe uterotonics?
- Training in AMTSL: What skills are needed?
- Service delivery protocols (AMTSL)
  - Indications
  - Dose
  - Contraindications
  - Management of side effects
- Skilled birth attendants
- Client counseling



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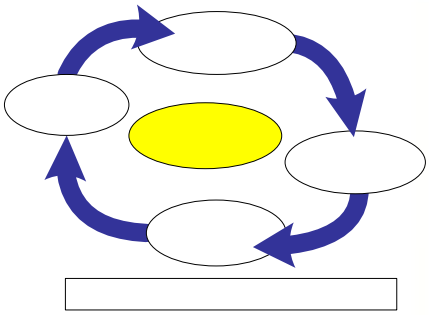
Management Support for the Uterotonics Management Cycle

- Standard Operating Procedures
- Financing
- Information management (MIS)
- Human resources
  - Preservice education
  - Continuing education
  - In-service education
- Monitoring and supervision



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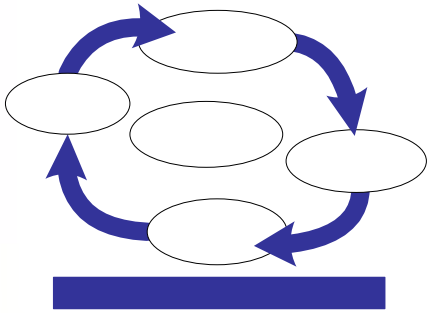
Policy and Legal Framework for Managing Uterotonics



- EML
- Registration issues
- Importation
- Centralized vs. decentralized; vertical vs. integrated programs
- Financing mechanisms: cost recovery, cost sharing, insurance
- AMTSL service delivery protocols
- Human resources: who is authorized to prescribe?

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Use

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